AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A method for promoting structural tissue regeneration, the method comprising contacting the tissue with erythropoietin (EPO), EMP, or novel erythropoiesis stimulating protein (NESP) ~~or thrombopoietin (TPO), or derivatives, analogues or parts thereof~~.

2. (Previously presented) The method according to Claim 1, characterized in that the tissue has previously been traumatized.

3. (Currently Amended) The method ~~Use~~ according to Claim 1 ~~or 2~~, characterized by the use of the receptor-binding domain of EPO ~~the growth factors or derivatives or analogues thereof~~.

4. (Cancelled)

5. (Currently Amended) The method according to Claim 1, characterized in that the ~~growth factors or derivatives, analogues or parts thereof~~ EPO, EMP, or NESP have additional glycosylation sites compared with the native growth factor.

6. (Currently Amended) The method according to Claim 1, characterized in that the ~~growth factors or derivatives, analogues or parts thereof~~ EPO, EMP, or NESP are conjugated with PEG.

7. (Cancelled)

8. (Withdrawn) A method for promoting structural tissue regeneration in a patient, the method comprising administering to the patient an EPO-inducing factor.

9. (Currently Amended) The method according to Claim 1 ~~or 8~~, characterized in that one of the following factors is additionally employed: somatostatin, leukemia inhibitory factor (LIF), "ciliary neurotropic factor" (CNTF), "transforming growth factor beta" (TGF beta), prostaglandins, granulocyte-macrophage-stimulating

factor (GM-CSF), granulocyte-stimulating factor (G-CSF), growth hormone releasing hormone (GHRH), thyrotropin-releasing hormone (TRH), gonadotropin-releasing hormone (GnRH), corticotropin-releasing hormone (CRH), dopamine, antidiuretic hormone (ADH), oxytocin, prolactin, adrenocorticotropin, beta-celltropin, lutrotropin, vasopressin, nerve regeneration factors, preferably nerve growth factor (NGF), vascular regeneration factors, preferably vascular endothelial growth factor (VEGF) or plateled derived growth factor (PDGF).

10. (Currently Amended) The method according to Claim 1 ~~or 8~~, characterized in that endothelial cells are present.

11. (Currently Amended) The method according to Claim 1 ~~or 8~~, characterized in that the regeneration of the tissue is controlled locally.

12. (Currently Amended) The method according to Claim 1 ~~or 8~~ , characterized in that ~~at least one of the one or more of~~ the ~~factors are~~ factor is administered topically.

13. (Currently Amended) The method according to Claim 1 or 8, characterized in that ~~at least one of the one or more of~~ the ~~factors are~~ factor is administered systemically.

14. (Currently Amended) The method according to Claim 1 ~~or 8~~, characterized in that the growth process is supported by a support structure.

15. (Previously Presented) The method according to Claim 14, characterized in that the support structure is treated with one of the factors.

16. (Previously Presented) The method according to Claim 14, characterized in that the support structure used is an implant, a transplant or a support material for the growth of cells.

17. (Previously Presented) The method according to Claim 14, characterized in that the support structure has been pre-colonized with cells, preferably tissue-specific cells, precursor cells, bone marrow cells, peripheral blood, fatty tissue or fibrous tissue, or prepared for *in vivo* colonization or *in vitro* inductive remodelling.

18. (Previously Presented) The method according to Claim 17, characterized in that the cells employed are adult progenitor cells, tissue-specific cells, preferably osteoblasts, fibroblasts, hepatocytes or smooth muscle cells.

19. (Currently Amended) The method according to Claim 1 ~~or 8~~, characterized in that the cell aggregates forming during the regeneration process are encapsulated and optionally frozen.

20. (Currently Amended) The method according to Claim 1 ~~or 8~~, characterized by the regeneration of nerve, muscle, epithelial or connective tissue and organs and structures derived therefrom.

21. (Currently Amended) The method according to Claim 1 ~~or 8~~ for the regeneration of the liver, in particular in liver cirrhosis, hepatitis, acute or chronic liver failure.

22. (Currently Amended) The method according to Claim 1 ~~or 8~~, characterized by the treatment for the regeneration of bone, cartilage, and tissue of endocrine organs, the cardiac muscle, of heart valves, venous valves, arterial valves, skin, vessels, aortas, tendons, cornea, trachea, nerves, meniscus, discus intervertebralis, intestinal epithelium, ureters, urethra or the bladder, and for the treatment of degenerative diseases or for supporting tissue regeneration in chronic inflammation, such as, for example, in Crohn's disease, colitis ulcerosa of diabetic ulcers, gingiva or for the stimulation of neovascularization after a tissue injury.

23. (Withdrawn) Support structure comprising at least one haematopoietic growth factor or derivatives, analogues or parts thereof according to Claim 1 or an EPO-inducing factor according to Claim 8.

24. (Withdrawn) Support structure according to Claim 23 additionally comprising at least one of the following growth factors: somatostatin, leukemia inhibitory factor (LIF), "ciliary neurotropic factor" (CNTF), "transforming growth factor beta" (TGF beta), prostaglandins, granulocyte-macrophage-stimulating factor (GM-CSF), granulocyte-stimulating factor (G-CSF), growth hormone releasing hormone (GHRH), thyrotropin-releasing hormone (TRH), gonadotropin-releasing hormone (GnRH), corticotropin-releasing hormone (CRH), dopamine, antidiuretic hormone

(ADH), oxytocin, prolactin, adrenocorticotropin, beta-celltropin, lutrotropin, vasopressin, nerve regeneration factors, preferably nerve growth factor (NGF), vascular regeneration factors, preferably vascular endothelial growth factor (VEGF) or plateled derived growth factor (PDGF).

25. (Withdrawn) Support structure according to Claim 23, characterized in that the support structure is an implant, a transplant or graft, a support material for the growth of cells, a stent, a patch, a catheter, skin, a hydrogel, a bone replacement material, an allogeneic, autologous or xenogenous, acellularized or non-acellularized tissue, a synthetic tissue, a feeder layer or a fleece.

26. (Withdrawn) Support structure according to Claim 23, characterized in that the support structure is pre-colonized with cells, preferably tissue-specific cells, precursor cells, bone marrow cells, peripheral blood, fatty tissue or fibrous tissue.

27. (Withdrawn) Support structure according to Claim 23, characterized in that the growth factors or derivatives, analogues or parts thereof according to Claim 1 or 8 are embedded in a biodegradable polymer layer.

28. (Withdrawn) Process for the preparation of a support structure for cell regeneration, the process comprising coating the support structure with at least one of the growth factors, derivatives, analogues or parts thereof according to Claim 1 or 8.

29. (Withdrawn) Process according to Claim 28, characterized by activation of the support structure, preferably by plasma ionization or laser irradiation.

30. (Withdrawn) Process according to Claim 28, characterized in that the support structure is pre-colonized *in vitro* with cells, preferably tissue-specific cells, precursor cells, bone marrow cells, peripheral blood, fatty tissue or fibrous tissue.

31. (Currently Amended) The method according to Claim 1 ~~or 8~~, characterized in that at least some of the process steps for promoting tissue regeneration are carried out entirely or partly *in vitro*.

32. (Withdrawn) The method according to Claim 31, characterized in that the growth process is supported by the administration of stem cells from the bone marrow, blood, tissue, fatty tissue, umbilical cord tissue or blood.

33. (Withdrawn) The method according to Claim 32, characterized in that the stem cells are pre-treated *in vitro* with a haematopoietic growth factor, in particular erythropoietin (EPO) or thrombopoietin (TPO), or derivatives, analogues or parts thereof.

34. (Currently Amended) Pharmaceutical composition comprising cells which have previously been pre-treated *in vitro* with ~~a haematopoietic growth factor, in particular~~ erythropoietin (EPO), EMP, or NESP ~~or thrombopoietin (TPO), or derivatives, analogues or parts thereof~~.

35. (Withdrawn) Pharmaceutical composition according to Claim 34, characterized by stem cells pre-treated *in vitro*.

36. (Currently Amended) A method for wound healing or liver regeneration, the method comprising administering to a patient a pharmaceutical composition according to Claim 34 ~~or 35~~.